

the superintendent of the works, by whom the specimen was kindly submitted to the writer for description. The specimen is in the museum of the Newcastle Mechanics' Institute. The anterior part, to beyond the pectoral fins, is wanting. Length of part preserved 12 inches; width $2\frac{3}{4}$ inches; near base of caudal fin 1 inch.

Helicerus (nov. gen.).—Allied to *Belemnites*. Calcareous ossicle thick, subcylindrical, containing internally a slender tubular cavity, (a continuation probably of an alveolus above,) which terminates in a small fusiform chamber helicoidly divided. This chamber has the shape of two cones put base to base; the tube leading to it appears to have contained a rolled membrane to correspond with the turns of the spiral dissepiment in the fusiform chamber.

Helicerus fuegiensis.—Ossicle cylindrical, half an inch in diameter; diameter of tube within nearly one-sixth that of the fossil, and that of the chamber more than half the same. Texture of the ossicle radiating fibrous, like ordinary *Belemnites*. Found by the writer in a slate rock on the shores of Nassau Bay, near Cape Horn.—*Silliman's Journal for May 1848*.

NOTES ON SOME AUSTRALIAN FOSSILS. By J. D. DANA.

In the valuable article by F. M'Coy on the fossils of Australia (*Ann. Nat. Hist.* vol. xx. p. 145), which was published some months after the writer's article on this subject, but before that article had reached Mr. M'Coy, there are some species redescribed. We observe that

Cardinia ? *exilis*, M'Coy, is *Cardinia recta*, D.

Pleurotomaria Morrisiana, M'Coy, is *Pleurotomaria trifilata*, D.

Pachydomus ovalis and *P. pusillus*, M'Coy, are species of *Astartila*, D., a genus nearer *Astarte* than *Pachydomus*.

Pachydomus sacculus, M'Coy, is a *Eurydesma*; *E. cordata* ? of Morris. (See Strzelecki's *N. S. Wales*, pl. 12. fig. 1.)

The genus *Notomya*, M'Coy, corresponds to *Pyramus*, D., and from the examination of our species, we cannot believe that they are related to the *Myidæ*.

The genus *Mæonia* of the author, (changed from *Myonia*,) along with *Pyramus*, and probably *Cleobis*, make a natural group among the *Astartidæ*, having the smaller anterior muscular impression facing in the same plane with the larger anterior, and thus differing strikingly from *Astarte*, *Pachydomus*, *Astartila*, *Cardinia*. Moreover the larger anterior is prolonged upward, and is pointed, towards the smaller anterior muscular impression. *Mæonia* has a second small anterior muscular impression, situated high up on the beak: if this is not sufficient for a generic distinction, all the species may be thrown together in the genus *Mæonia*, as the gradations are such that it is difficult to draw lines of distinction. The *Pachydomus gigas* of M'Coy falls into the same group, being between *Cleobis* and *Mæonia* as these genera were before laid down. The group *Cleobis*, if sustained, would include species not having the sides at all excavate; but this hardly seems to be a generic character among these species. The *Pachydomus globosus* of Morris and M'Coy appears to be a different species from the *P. globosus* of Sowerby, whose figure

in 'Mitchell's Australia' (pl. 1. p. 14. vol. i.) represents a species with very *thick* valves, and from Harper's Hill, instead of Illawarra. Morris's species is believed to be *Cleobis grandis* of the writer.

The species referred in a former article to *Modiolopsis* (Hall) appear to have two muscular impressions, and for the most part more properly belong with the *Cypricardie*.—*Silliman's Journal for May 1848.*

A new Organ of Sound in Lepidoptera. By S. S. HALDEMAN.

The *Lithosia miniata*, Kirby (Fauna Bor.-Am. p. 305), or an allied species, produces an audible stridulation by vibrating the pleura beneath the wings, this part being marked in recent specimens by parallel lines, apparently indicating the position of the muscles. It is possible that the European *Acherontia atropos* may produce its peculiar sound in a similar manner.—*Silliman's Journal for May 1848.*

METEOROLOGICAL OBSERVATIONS FOR JUNE 1848.

Chiswick.—June 1. Cloudy and fine : rain. 2. Showery. 3. Showery : fine : clear. 4. Heavy showers : fine. 5. Fine. 6. Uniform haze : fine : clear. 7. Very fine. 8. Cloudy. 9. Very fine : rain. 10. Constant heavy rain. 11. Overcast : cloudy. 12. Cloudy : rain. 13. Heavy showers. 14–16. Very fine. 17. Cloudy and fine. 18. Densely overcast : rain at night. 19, 20. Overcast. 21. Cloudy and fine. 22. Very fine. 23. Hazy : rain. 24. Rain : fine : slight rain. 25. Overcast. 26. Fine. 27. Cloudy. 28, 29. Fine. 30. Rain.

Mean temperature of the month 59°·58
 Mean temperature of June 1847 58·46
 Mean temperature of June for the last twenty years 60·81
 Average amount of rain in June 1·88 inch.

Boston.—June 1. Fine : rain P.M. 2. Cloudy. 3. Cloudy : rain P.M. 4. Fine : rain P.M. 5. Cloudy. 6. Fine. 7, 8. Fine : rain P.M. 9. Cloudy : rain P.M. 10. Fine : rain P.M. 11. Cloudy : rain early A.M. 12. Cloudy : rain A.M. and P.M. 13. Rain : rain A.M. 14, 15. Fine. 16. Cloudy : rain A.M. and P.M. 17. Rain : rain A.M. 18. Cloudy : rain A.M. and P.M. 19–21. Cloudy. 22. Fine. 23. Cloudy : rain P.M. 24. Cloudy : rain A.M. and P.M. 25. Cloudy. 26. Fine. 27. Cloudy : rain early A.M. 28. Cloudy : rain A.M. 29. Rain : rain A.M. 30. Fine : rain P.M.—This has been the wettest June for nine years, and May the driest for nineteen years.

Applegarth Mansc, Dumfries-shire.—June 1. Showery all day : A.M. clear. 2. Showery all day : thunder. 3. Fine A.M. : rain : thunder. 4. Showery : hail. 5. Fair, but cloudy. 6. Slight showers. 7. Showers : thunder : hail. 8. Showers : thunder. 9. Fine : some drops of rain. 10. Fair and fine. 11. Fine : warm : showers. 12. Rain all day. 13. Showery nearly all day. 14. Showers early : cleared : fine. 15. Fiery wind : fair. 16. Heavy showers P.M. 17. Fine : one slight shower. 18–20. Very fine summer days. 21. Warm : thunder : showers. 22. Fair : wind violent. 23. Slight shower P.M. 24. Fair and pleasant. 25. Fine A.M. : rain P.M. 26–30. Constant showers.

Mean temperature of the month 55°·7
 Mean temperature of June 1847 55·2
 Mean temperature of June for the last twenty-five years . 56·1
 Average amount of rain in June for twenty years 3·16 inches.

Sandwick Mansc, Orkney.—June 1. Showers : fine. 2. Cloudy. 3. Cloudy : rain. 4. Cloudy. 5. Rain : cloudy. 6. Bright : showers. 7. Clear : showers. 8. Clear : cloudy. 9–11. Clear. 12. Clear : cloudy. 13. Drops : rain. 14. Damp : rain. 15. Rain : drops. 16, 17. Fine. 18. Cloudy. 19, 20. Bright : cloudy. 21–25. Cloudy. 26. Bright : cloudy. 27. Rain : damp. 28. Rain. 29. Cloudy. 30. Bright : drops.